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NrCAM Rabbit pAb

Catalog # AP98884

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q810U4
Other Accession	Q810U4
Reactivity	Rat
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	138522
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse NrCAM
Epitope Specificity	201-300/1256
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the immunoglobulin superfamily. L1/neurofascin/NgCAM family. Contains 5 fibronectin type-III domains. Contains 6 Ig-like C2-type (immunoglobulin-like) domains.
SUBUNIT	Probable constituent of a neurofascin/NRCAM/ankyrin-G complex. Interacts with GLDN/gliomedin. Interacts with MYOC.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Neuronal cell adhesion molecule (NrCAM) is a cell surface protein of the immunoglobulin (Ig) superfamily. NrCAM (also known as Bravo) contains six Ig domains, five fibronectin repeats, a transmembrane region and an intracellular domain. NrCAM is expressed in brain, spinal cord, peripheral nervous system and pancreas. In the spinal cord, NrCAM acts as a ligand for axonin-1 to guide commissural axons across the floor plate. NrCAM also acts as a ligand for F3 to control actin-dependent growth cone motility. NrCAM interacts with neurofascin and may facilitate the clustering of the cystoskeletal protein ankyrin G and the voltage-dependent sodium channel proteins at the node of Ranvier. NrCAM expression may play a role in the severity of certain types of tumors. NrCAM is overexpressed in high-grade astrocytomas, gliomas and glioblastoma tumor tissues. In the pancreas, NrCAM expression is upregulated in intraductal hyperplasia. Antisense NrCAM reduces the tumorigenic properties of human glioblastoma cells in vitro and slowed tumor growth in vivo. The gene encoding human NrCAM maps to chromosome 7q31.1-q31.2.

Additional Information

Gene ID	319504
Other Names	NEDNMS; Bravo; C030017F07Rik; C130076O07Rik; mKIAA0343;

	NRCAM_HUMAN; NRCAM; Nr-CAM; Neuronal surface protein Bravo (hBravo); NgCAM-related cell adhesion molecule (Ng-CAM-related); KIAA0343; NRCAM_MOUSE; Neuronal surface protein Bravo (mBravo); NRCAM_RAT; Ankyrin-binding cell adhesion molecule NrCAM; Neuronal surface protein Bravo (rBravo); neuronal cell adhesion molecule; NgCAM-related cell adhesion molecule
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Nrcam
Synonyms	Kiaa0343
Function	Cell adhesion protein that is required for normal responses to cell-cell contacts in brain and in the peripheral nervous system. Plays a role in neurite outgrowth in response to contactin binding (PubMed:11564762). Plays a role in mediating cell-cell contacts between Schwann cells and axons (PubMed:20188654). Plays a role in the formation and maintenance of the nodes of Ranvier on myelinated axons. Nodes of Ranvier contain clustered sodium channels that are crucial for the saltatory propagation of action potentials along myelinated axons. During development, nodes of Ranvier are formed by the fusion of two heminodes. Required for normal clustering of sodium channels at heminodes; not required for the formation of mature nodes with normal sodium channel clusters (PubMed:14602817, PubMed:20188654). Required, together with GLDN, for maintaining NFASC and sodium channel clusters at mature nodes of Ranvier (PubMed:24719088).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, axon. Secreted. Note=Detected at nodes of Ranvier (PubMed:14602817, PubMed:20188654, PubMed:24719088)
Tissue Location	Detected in sciatic nerve (PubMed:14602817, PubMed:20188654, PubMed:24719088). Detected in brain, especially in the cerebellum Purkinje cell layer, inner granule cell layer and molecular layer (at protein level) (PubMed:11564762). Detected in neurons and Schwann cells (PubMed:20188654).

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